PIZZA SALES ANALYSIS

Unraveling the Mystery with Data

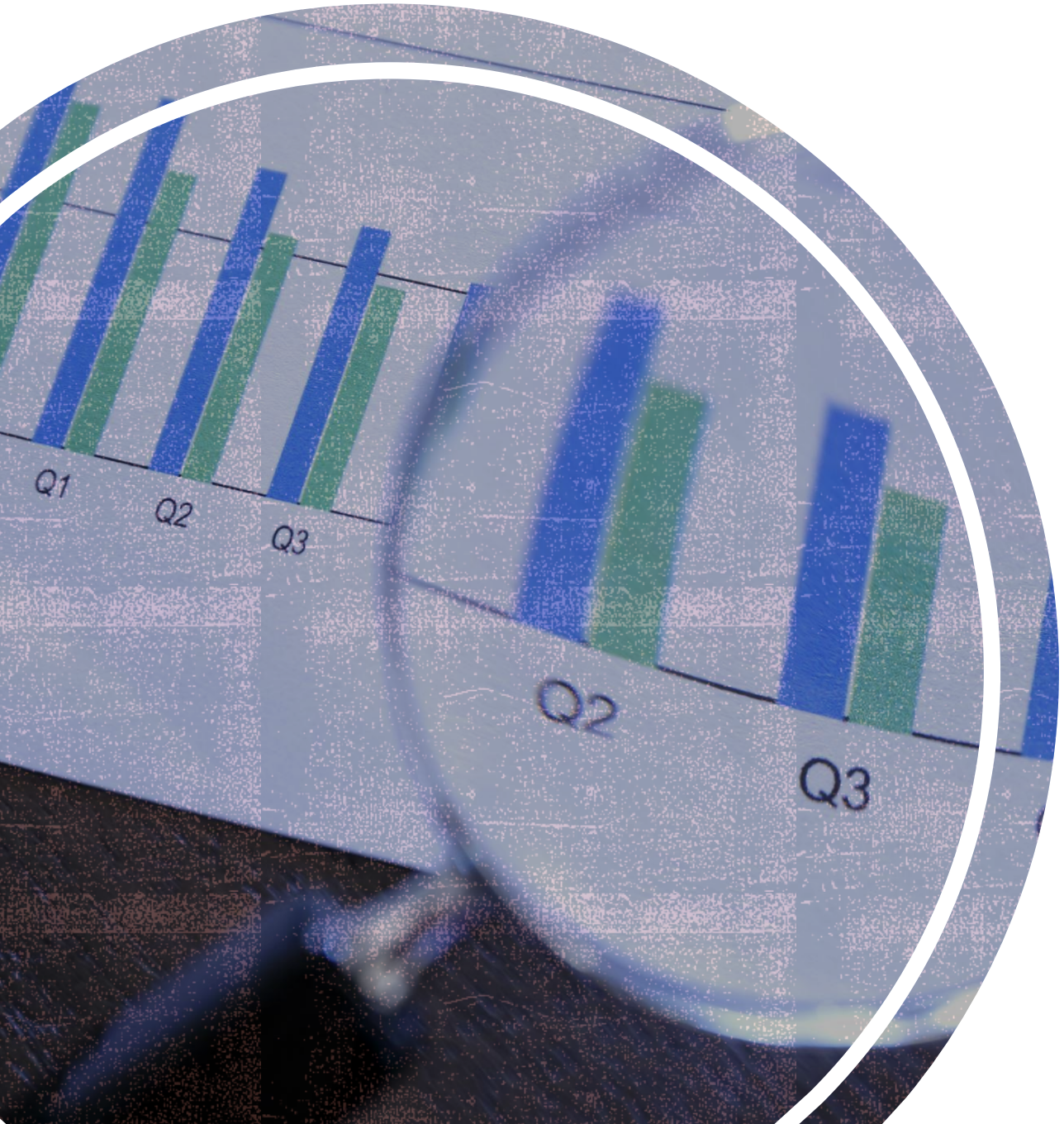
HELLO !

Welcome to my pizza sales analytics project!

By harnessing the power of Power BI and SQL queries, I've gained deep insights into our sales data. Analyzing key metrics like revenue and order trends, and using SQL for deeper analysis, I've identified opportunities to optimize sales strategies and drive growth. Join me as I explore the dynamic world of pizza sales analytics!

OBJECTIVE:

- **Understand Sales Performance:** Analyze total revenue, average order value, total orders, and average pizzas per order.
- **Identify Trends:** Examine daily and monthly trends in total orders.
- **Category and Size Analysis:** Evaluate the percentage of sales by category and size.
- **Identify Best and Worst Sellers:** Create a dashboard to highlight top and bottom performers based on revenue, category, and quantity.
- **Recommendation Generation:** Use insights to provide actionable recommendations for improving sales strategies.



OUTCOMES:

- **Clear Sales Trends**: Identified patterns in daily and monthly sales for better forecasting.
- **Optimized Menu**: Adjusted menu offerings based on top-selling categories and sizes.
- **Revenue Boost**: Increased average order value and overall revenue through pricing strategies.
- **Streamlined Operations**: Reduced costs and improved efficiency with data-driven insights.
- **Actionable Recommendations**: Provided clear recommendations for further sales optimization and growth.

SQL QUERIES:

A. KPI's

1. Total Revenue:

```
SELECT SUM(total_price) AS Total_Revenue FROM pizza_sales;
```

Results | Messages

	Total_Revenue
1	817860.05083847

2. Average Order Value

```
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS Avg_order_Value
FROM pizza_sales
```

Results | Messages

	Avg_order_Value
1	38.3072623343546

3. Total Pizzas Sold

```
SELECT SUM(quantity) AS Total_pizza_sold FROM pizza_sales
```

Results Messages

	Total_pizza_sold
1	49574

4. Total Orders

```
SELECT COUNT(DISTINCT order_id) AS Total_Orders FROM pizza_sales
```

Results Messages

	Total_Orders
1	21350

5. Average Pizzas Per Order

```
SELECT CAST(CAST(SUM(quantity) AS DECIMAL(10,2)) /
CAST(COUNT(DISTINCT order_id) AS DECIMAL(10,2)) AS DECIMAL(10,2))
AS Avg_Pizzas_per_order
FROM pizza_sales
```

Results Messages

	Avg_Pizzas_per_order
1	2.32

B. Daily Trend for Total Orders

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS
total_orders
FROM pizza_sales
GROUP BY DATENAME(DW, order_date)
```

Output:

Results | Messages

	order_day	total_orders
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

C. Monthly Trend for Orders

```
select DATENAME(MONTH, order_date) as Month_Name, COUNT(DISTINCT order_id)
as Total_Orders
from pizza_sales
GROUP BY DATENAME(MONTH, order_date)
```

Output

	Month_Name	Total_Orders
1	February	1685
2	June	1773
3	August	1841
4	April	1799
5	May	1853
6	December	1680
7	January	1845
8	September	1661
9	October	1646
10	July	1935
11	November	1792
12	March	1840

D. % of Sales by Pizza Category

```
SELECT pizza_category, CAST(SUM(total_price) AS DECIMAL(10,2)) as
total_revenue,
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) from pizza_sales)
AS DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_category
```

Output

Results | Messages

	pizza_category	total_revenue	PCT
1	Classic	220053.10	26.91
2	Chicken	195919.50	23.96
3	Veggie	193690.45	23.68
4	Supreme	208197.00	25.46

E. % of Sales by Pizza Size

```
SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) as
total_revenue,
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) from pizza_sales)
AS DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_size
ORDER BY pizza_size
```

Output

Results Messages

	pizza_size	total_revenue	PCT
1	L	375318.70	45.89
2	M	249382.25	30.49
3	S	178076.50	21.77
4	XL	14076.00	1.72
5	XXL	1006.60	0.12

F. Total Pizzas Sold by Pizza Category

```
SELECT pizza_category, SUM(quantity) as Total_Quantity_Sold
FROM pizza_sales
WHERE MONTH(order_date) = 2
GROUP BY pizza_category
ORDER BY Total_Quantity_Sold DESC
```

Output

Results Messages

	pizza_category	Total_Quantity_Sold
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

G. Top 5 Pizzas by Revenue

```
SELECT Top 5 pizza_name, SUM(total_price) AS Total_Revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Revenue DESC
```

Results | Messages

	pizza_name	Total_Revenue
1	The Thai Chicken Pizza	43434.25
2	The Barbecue Chicken Pizza	42768
3	The California Chicken Pizza	41409.5
4	The Classic Deluxe Pizza	38180.5
5	The Spicy Italian Pizza	34831.25

H. Bottom 5 Pizzas by Revenue

```
SELECT Top 5 pizza_name, SUM(total_price) AS Total_Revenue
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Revenue ASC
```

	pizza_name	Total_Revenue
1	The Brie Carre Pizza	11588.4998130798
2	The Green Garden Pizza	13955.75
3	The Spinach Supreme Pizza	15277.75
4	The Mediterranean Pizza	15360.5
5	The Spinach Pesto Pizza	15596

I. Top 5 Pizzas by Quantity

```
SELECT Top 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold DESC
```

Output

	pizza_name	Total_Pizza_Sold
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

J. Bottom 5 Pizzas by Quantity

```
SELECT TOP 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold

FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold ASC
```

Output

Results Messages

	pizza_name	Total_Pizza_Sold
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppressata Pizza	961

K. Top 5 Pizzas by Total Orders

```
SELECT Top 5 pizza_name, COUNT(DISTINCT order_id) AS Total_Orders
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Orders DESC
```

Results | Messages

	pizza_name	Total_Orders
1	The Classic Deluxe Pizza	2329
2	The Hawaiian Pizza	2280
3	The Pepperoni Pizza	2278
4	The Barbecue Chicken Pizza	2273
5	The Thai Chicken Pizza	2225

L. Borrom 5 Pizzas by Total Orders

```
SELECT Top 5 pizza_name, COUNT(DISTINCT order_id) AS Total_Orders
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Orders ASC
```

	pizza_name	Total_Orders
1	The Brie Carre Pizza	480
2	The Mediterranean Pizza	912
3	The Spinach Supreme Pizza	918
4	The Calabrese Pizza	918
5	The Chicken Pesto Pizza	938

NOTE

If you want to apply the pizza_category or pizza_size filters to the above queries you can use WHERE clause. Follow some of below examples

```
SELECT Top 5 pizza_name, COUNT(DISTINCT order_id) AS Total_Orders
FROM pizza_sales
WHERE pizza_category = 'Classic'
GROUP BY pizza_name
ORDER BY Total_Orders ASC
```

POWER BI DASHBOARDS:

Pizza Sales Report

Jan15-Dec15

Pizza Category: All

1/1/2015 – 12/31/2015

Home

Best/Worst Sellers

BUSIEST DAYS & TIMES

DAYS

Orders are highest on weekends, Friday/Saturday evenings.

MONTHLY

There are maximum orders from month the month of July and January.

SALES PERFORMANCE

CATEGORY

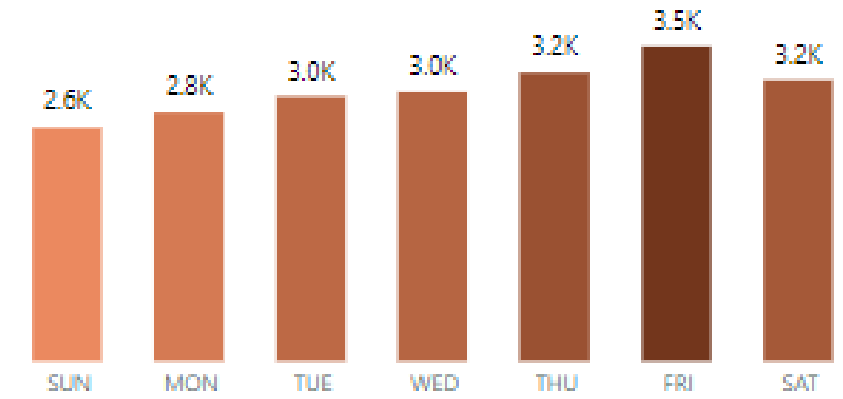
Classic category contributes to maximum sales & total orders.

SIZE

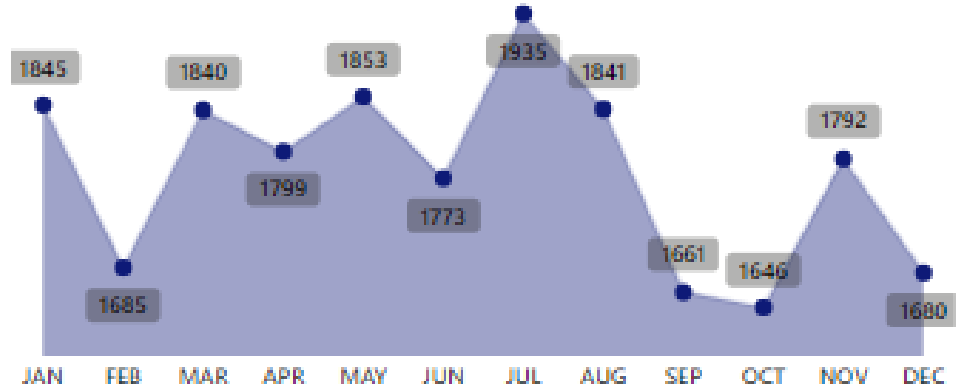
Large size pizza contributes to maximum sales.

817.86K	38.31	49574	21350	2.32
Total Revenue	Avg Order Value	Total Pizzas Sold	Total Orders	Avg Pizzas Per Order

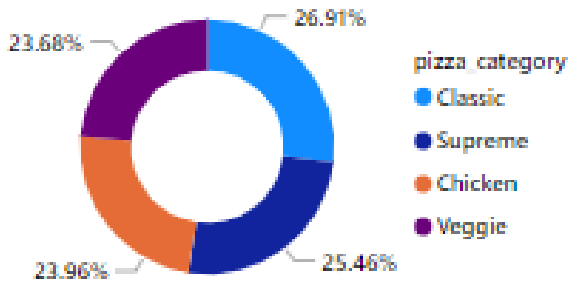
Daily Trend for Total Orders



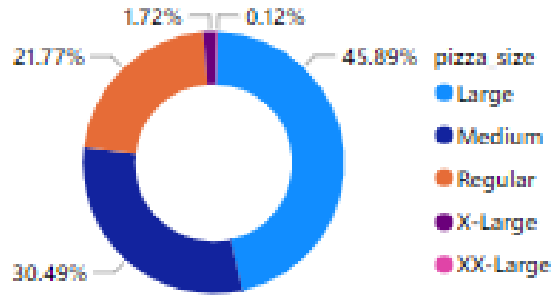
Monthly Trend for Total Orders



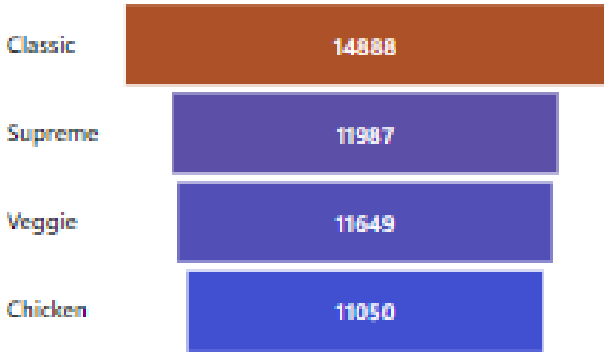
Percentage of Sales by Pizza Category



Percentage of Sales by Pizza Size



Total Pizzas Sold by Pizza Category



Pizza Sales Report

Jan15-Dec15

Pizza Category: All

1/1/2015 – 12/31/2015

Home

Best/Worst Sellers

BEST SELLERS

REVENUE

The Thai Chicken Pizza contributes to maximum revenue.

QUANTITY

The Classic Deluxe Pizza contributes to maximum Total Quantities.

TOTAL ORDERS

The Classic Deluxe Pizza contributes to maximum Total Orders.

WORST SELLERS

REVENUE

The Brie Carre Pizza contributes to minimum revenue.

QUANTITY

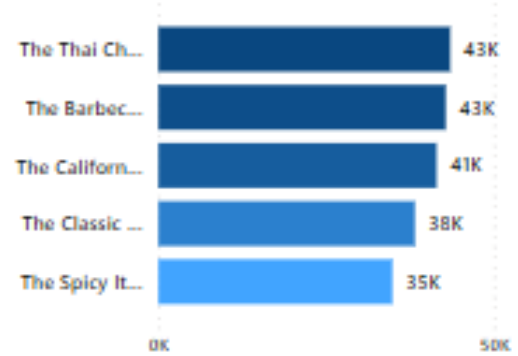
The Brie Carre Pizza contributes to minimum Total Quantities.

TOTAL ORDERS

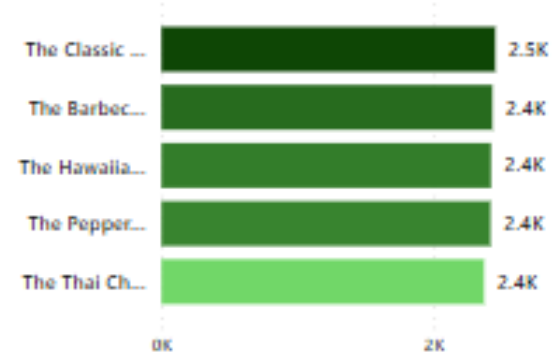
The Brie Carre Pizza contributes to minimum Total Orders.

817.86K	38.31	49574	21350	2.32
Total Revenue	Avg Order Value	Total Pizzas Sold	Total Orders	Avg Pizzas Per Order

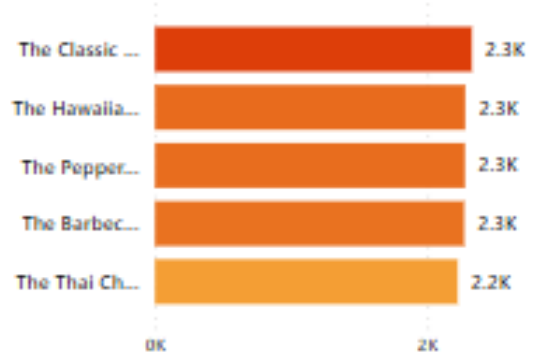
Top 5 Pizzas by Revenue



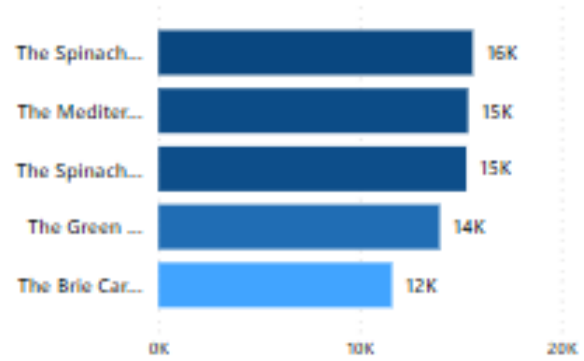
Top 5 Pizzas by Quantity



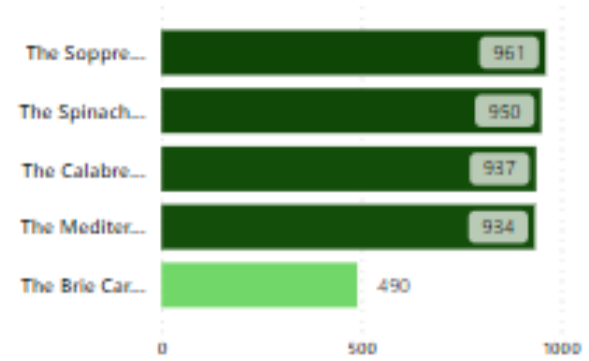
Top 5 Pizzas by Total Orders



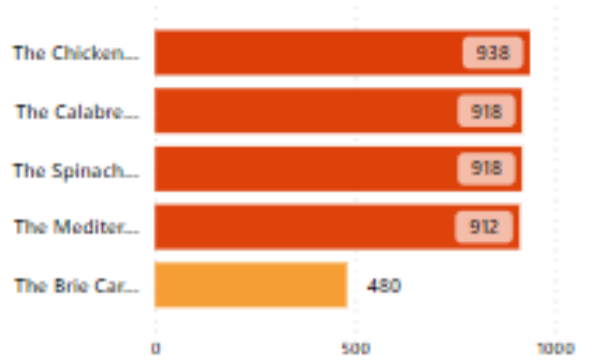
Bottom 5 Pizzas by Revenue



Bottom5 Pizzas by Quantity



Bottom 5 Pizzas by Total Orders



INSIGHTS:

- Orders are highest on weekends, Friday/Saturday evenings.
- There are maximum orders from the month of January and July.
- Classic category contributes to maximum sales and total orders.
- Large size pizza contributes to maximum sales.
- 16% of the total orders were placed on Fridays, indicating high demand at the end of the workweek.
- The Thai Chicken Pizza contributes to maximum revenue.
- The Brie Carre Pizza contributes to minimum revenue.

SUGGESTIONS:

- **Weekend Specials**: Launch enticing promotions on Fridays and Saturdays to maximize weekend orders.
- **Seasonal Surprises**: Plan exclusive deals for January and July, the peak order months, to attract more customers.
- **Classic Delights**: Promote our Classic category heavily as it drives the most sales.
- **Go Big on Large Pizzas**: Offer irresistible deals to upsell large-sized pizzas, our top revenue generator.
- **Friday Frenzy**: Introduce "Friday Frenzy Deals" to cater to the high demand at the end of the workweek.
- **Highlight Best Sellers**: Spotlight Thai Chicken Pizza for maximum revenue and strategize to boost sales of the Brie Carre Pizza.

THANK YOU:

As we savor the final slice of this journey,

I want to express my heartfelt gratitude for your time and attention. This project has been an exciting exploration into the world of pizza sales analytics, uncovering delicious insights with the magic of SQL and Power BI. If you crave more pizza wisdom or have any questions, please don't hesitate to reach out. Thank you for being a part of this pizzalicious adventure!

Regards,

Abhishek Kumar